

WHAT IS CLAIMED IS:

1. A medical device comprising:
an implantable structure;
5 a basecoat matrix, including a combination of rapamycin and a topoisomerase I inhibitor, in therapeutic dosages, incorporated in a first polymeric material, the basecoat matrix being affixed to the surface of the implantable medical device; and
a topcoat, including a second polymeric material, affixed to the
10 basecoat matrix for controlling the elution rate of the rapamycin and the topoisomerase I inhibitor.
2. The medical device according to claim 1, wherein the topoisomerase I inhibitor comprises topotecan.
- 15 3. The medical device according to claim 1, wherein the topoisomerase I inhibitor comprises irinotecan.
4. The medical device according to claim 1, wherein the
20 topoisomerase I inhibitor comprises camptothecin.
5. The medical device according to claim 1, wherein the topoisomerase I inhibitor comprises DX-8951f.
- 25 6. The medical device according to claim 1, wherein the implantable structure comprises a stent.
7. The medical device according to claim 1, wherein the implantable
30 structure comprises a stent-graft.
8. The medical device according to claim 1, wherein the implantable structure comprises an anastomosis device.

9. The medical device according to claim 1, wherein the second polymeric material is incompatible with the first polymeric material, thereby creating both a physical and chemical barrier to the elution of the rapamycin and cladribine.
- 5
10. The medical device according to claim 9, wherein the first polymeric material comprises a fluoropolymer.
11. The medical device according to claim 9, wherein the second polymeric material comprises an acrylic.
- 10
12. A medical device comprising:
an implantable structure; and
a combination of rapamycin and a topoisomerase I inhibitor, in
therapeutic dosages, releasably affixed to the implantable structure for
the treatment of restenosis following vascular injury.
- 15
13. The medical device according to claim 12, wherein the topoisomerase I inhibitor comprises topotecan.
- 20
14. The medical device according to claim 12, wherein the topoisomerase I inhibitor comprises irinotecan.
15. The medical device according to claim 12, wherein the topoisomerase I inhibitor comprises camptothecin.
- 25
16. The medical device according to claim 12, wherein the topoisomerase I inhibitor comprises DX-8951f.
17. The medical device according to claim 12, wherein the implantable structure comprises a stent.
- 30

18. The medical device according to claim 12, wherein the implantable structure comprises a stent-graft.

19. The medical device according to claim 12, wherein the implantable structure comprises an anastomosis device

20. The medical device according to claim 12, further comprising a polymeric coating, the combination of rapamycin and cladribine being incorporated into the polymeric coating.

21. A method for treating restenosis comprising the local administration of a therapeutic dose of a combination of rapamycin and a topoisomerase I inhibitor.

22. A method for treating restenosis comprising the administration of a therapeutic dose of a combination of rapamycin and topotecan.

23. A medical device comprising:
an implantable medical structure; and
a combination of rapamycin and topotecan, in therapeutic dosages, releasably affixed to the implantable structure for the treatment of restenosis following vascular injury.

24. A medical device comprising:
an implantable structure; and
a topoisomerase I inhibitor, in therapeutic dosages, releasably affixed to the implantable structure for the treatment of restenosis following vascular injury.